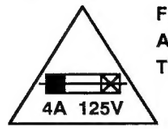
MODEL DS19530
Chassis No. 19530-00

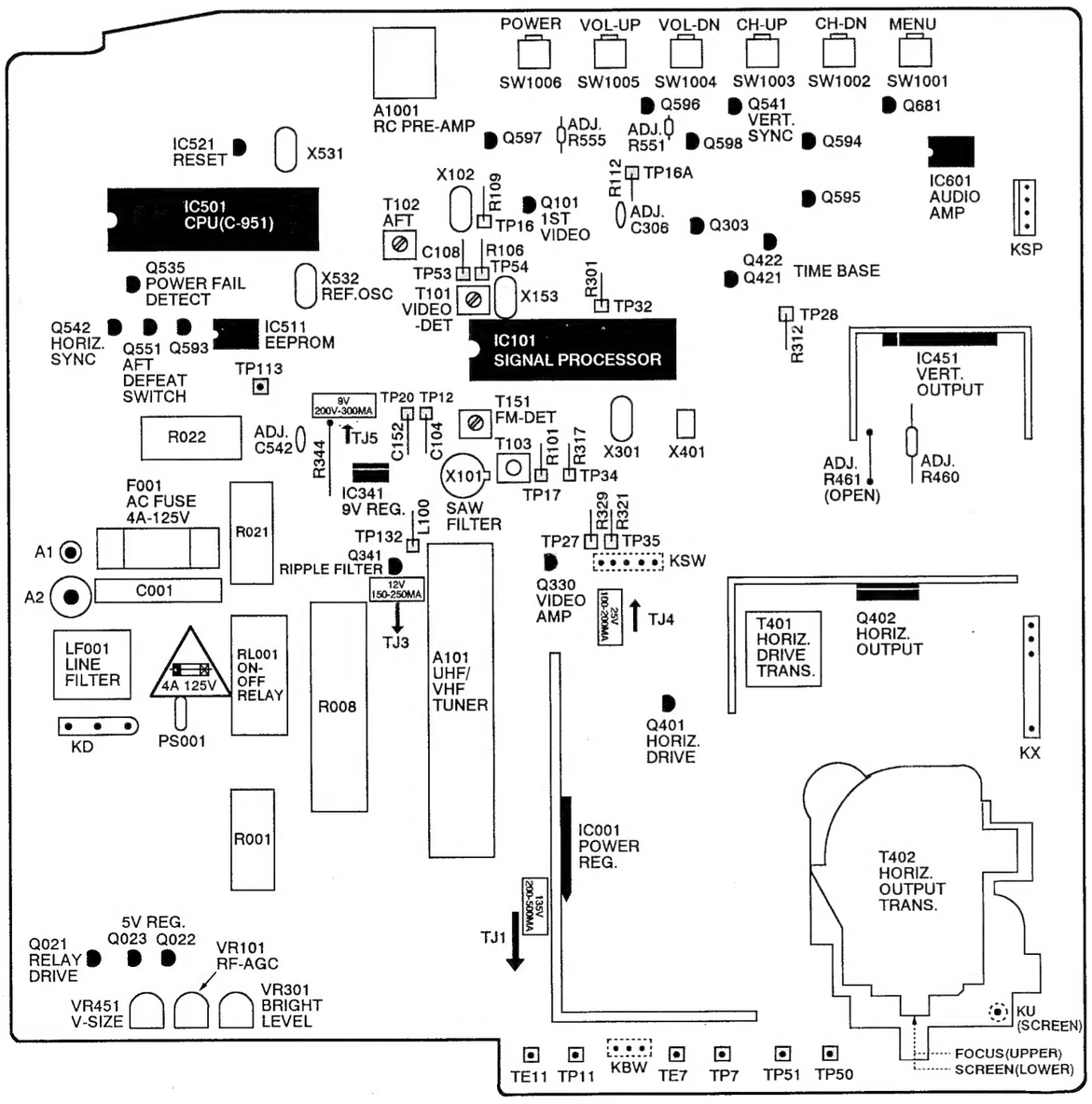
COMPONENT AND TESTPOINT LOCATIONS

MAIN BOARD

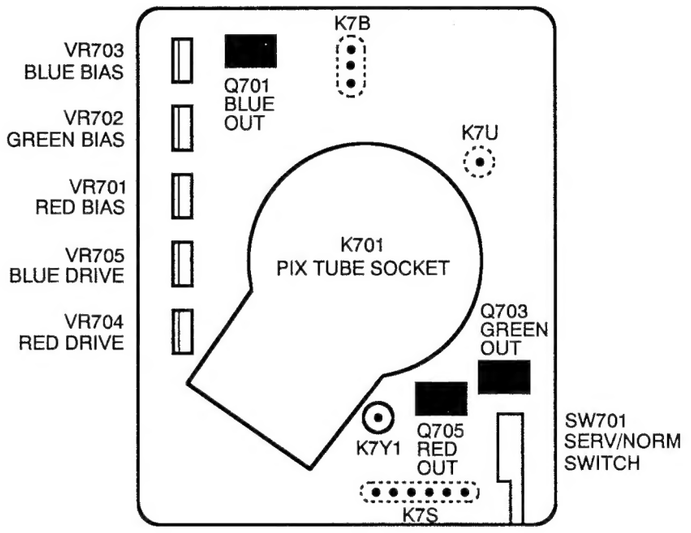
CAUTION



FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE, REPLACE ONLY WITH THE SAME TYPE 4A, 125V FUSE.



PIX TUBE SOCKET BOARD



NOTES
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2. Unles the va
3. Unles Volta Some
4. Wave an *
5. The S

SERVICI
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2. When
3. Keep

THE CO WHOSE DESIGN DO NOT

THIS TV VOLTAG UNDER

SCHEMATIC DIAGRAM

NOTES ON SCHEMATIC DIAGRAM

1. All resistance values in ohms K=1,000 M=1,000,000.
2. Unless otherwise noted on schematic, all capacitor values less than 1 are expressed in μ F (Micro Farad) and the values more than 1 are in pF.
3. Unless otherwise noted on schematic, voltage reading taken with "VTVM" from point indicated to chassis ground. Voltage reading taken using a color bar signal on VHF channel 5, all controls at normal. Line voltage at 120 volts. Some voltages may vary with signal strength.
4. Waveforms were taken with color bar signal and controls adjusted for normal picture. Waveforms marked with an * may vary with signal strength.
5. The Symbol (FW) indicates fusible resistor, which protects the circuit from possible short circuits.

SERVICE NOTES:

1. When replacing parts on circuit boards, clamp the lead wires to terminals before soldering.
2. When replacing high wattage resistors on circuit board, keep the resistor body 10 mm (3/8") from circuit board.
3. Keep wires away from high voltage and high temperature components.

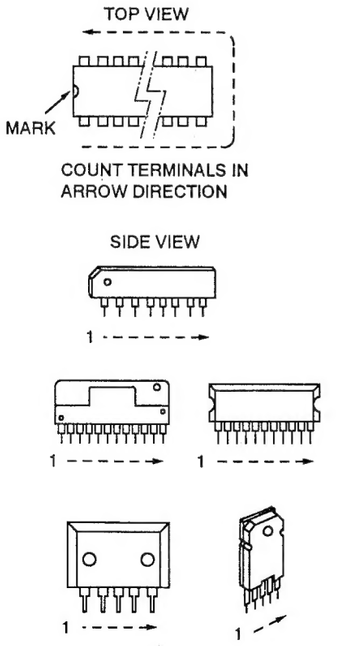
PRODUCT SAFETY NOTICE

THE COMPONENTS DESIGNATED BY A STAR(★) ON THIS SCHEMATIC DIAGRAM DESIGNATE COMPONENT WHOSE VALUES ARE OF SPECIAL SIGNIFICANCE TO PRODUCT SAFETY. SHOULD ANY COMPONENT DESIGNATED BY A STAR NEED TO BE REPLACED, USE ONLY THE PART DESIGNATED IN THE PARTS LIST. DO NOT DEVIATE FROM THE RESISTANCE, WATTAGE AND VOLTAGE RATINGS SHOWN.

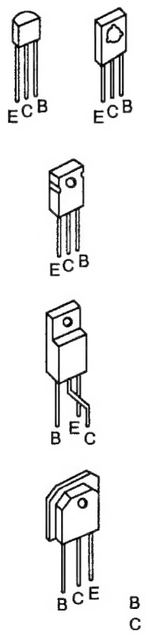
X-RADIATION WARNING NOTE

THIS TV CONTAINS CRITICAL PARTS TO PROTECT AGAINST X-RADIATION. NOMINAL 2ND ANODE VOLTAGE IS 26.0KV AT ZERO BEAM CURRENT AT 120VOLTS AC LINE, AND MUST NOT EXCEED 27.0KV UNDER ANY OPERATING CONDITION. SEE HIGH VOLTAGE CHECK ON PAGE 3.

INTEGRATED CIRCUITS

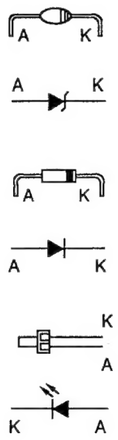


TRANSISTORS



B ... BASE
C ... COLLECTOR
E ... EMITTER

DIODES

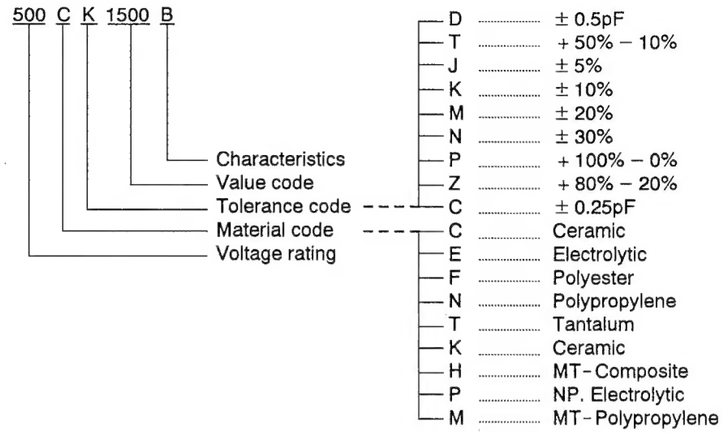


INFRARED EMITTING DIODE

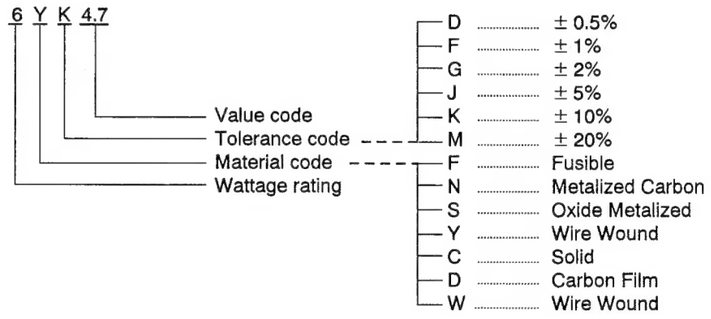
A ... ANODE
K ... CATHODE

CAPACITOR AND RESISTOR CODE CHART

CAPACITOR (Example)

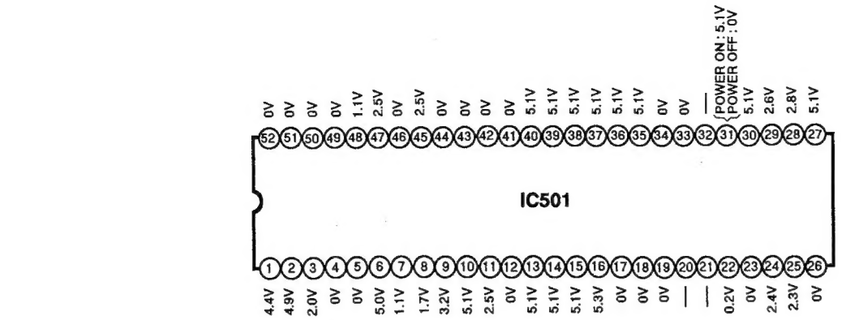


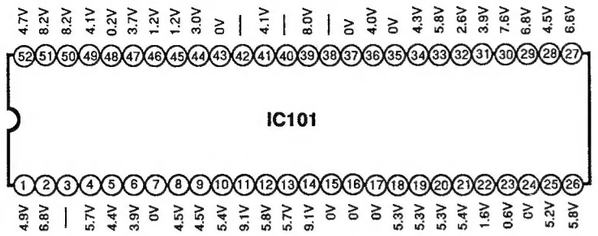
RESISTOR (Example)



CAUTION

FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE, REPLACE ONLY WITH THE SAME TYPE 4A, 125V FUSE.

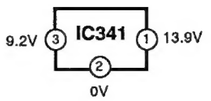


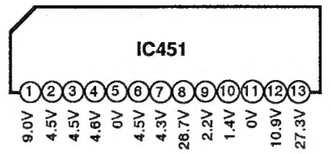


Q303	
	VOLT.
B	3.7 V
C	—
E	3.0 V

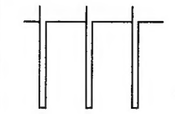
Q330	
	VOLT.
B	5.4 V
C	0.2 V
E	5.4 V

Q341	
	VOLT.
B	13.7 V
C	14.0 V
E	13.0 V



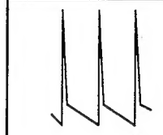


IC451 ② pin



4.7V VERT.

IC451 ⑫ pin



55V VERT.

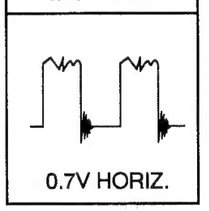
Q401	
	VOLT.
B	0.4 V
C	60.0 V
E	0 V

Q402	
	VOLT.
B	0.7 V
C	—
E	0.6 V

Q421	
	VOLT.
B	6.6 V
C	0 V
E	5.3 V

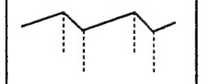
Q422	
	VOLT.
B	4.7 V
C	5.3 V
E	5.3 V

Q401 Base



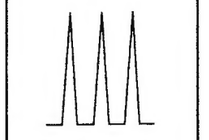
0.7V HORIZ.

Q402 Base

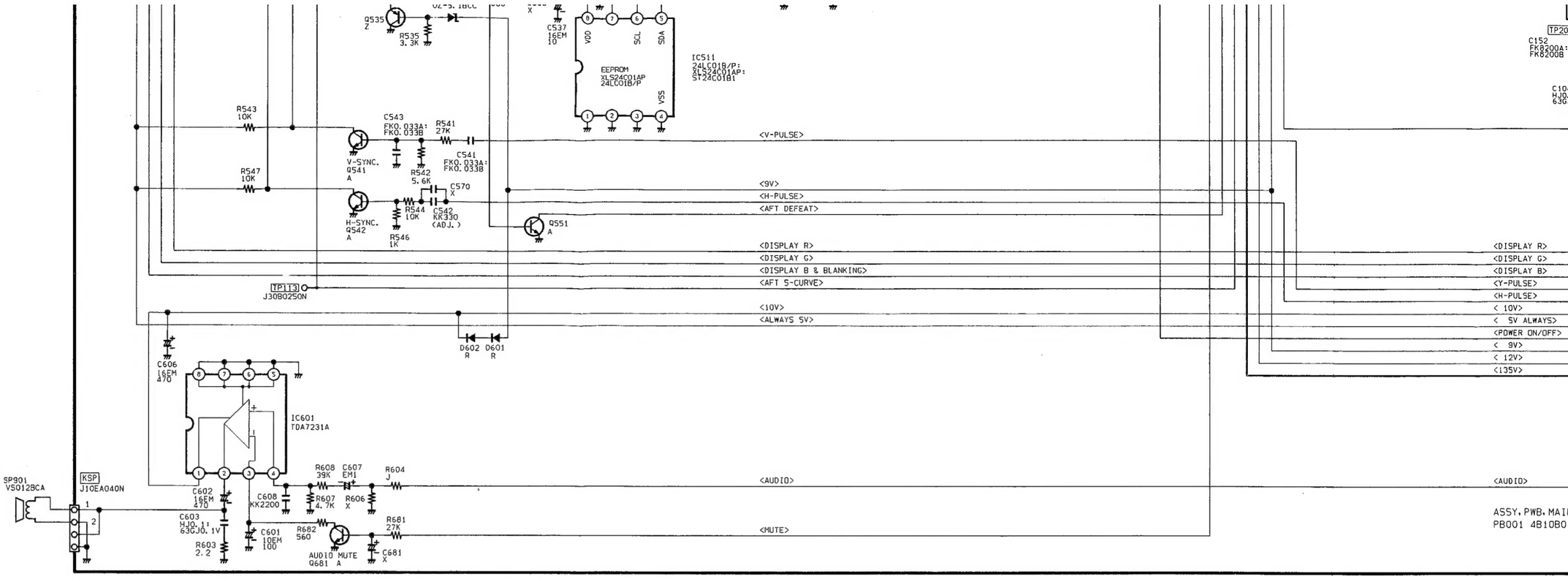


6.5V HORIZ.

T402 ⑨ pin



27V HORIZ.



Q535	
	VOLT.
B	4.5 V
C	0 V
E	5.0 V

Q541	
	VOLT.
B	0 V
C	4.9 V
E	0 V

Q542	
	VOLT.
B	0 V
C	4.4 V
E	0 V

Q551	
	VOLT.
B	0.7 V
C	0 V
E	0 V

Q593		
	VOL. MIN	VOL.MAX
B	0.7 V	0 V
C	0 V	
E	0 V	

Q594	
	VOLT.
B	0.6 V
C	1.4 V
E	0 V

Q595	
	VOLT.
B	0.3 V
C	3.6 V
E	0 V

Q596	
	VOLT.
B	0 V
C	8.6 V
E	0 V

Q597	
	VOLT.
B	0.5 V
C	1.2 V
E	0 V

Q598	
	VOLT.
B	0.6 V
C	1.0 V
E	0 V

Q681	
	VOLT.
B	0 V
C	0.5 V
E	0 V

IC101 ⑱ pin (R-Y)

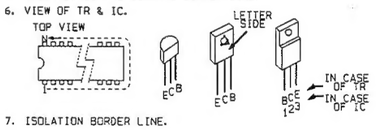
1.2V HORIZ.

IC101 ⑲ pin (G-Y)

0.4V HORIZ.

NOTES:

1. RESISTORS SPECIFIED WITH RESISTANCE VALUE ARE "1/6DJ".
2. RESISTORS SPECIFIED WITH TYPE OF RESISTOR, TOLERANCE AND RESISTANCE VALUE ARE "1/4".
3. ALL CAPACITORS ARE 50WV RATING UNLESS OTHERWISE NOTED.
4. PARTS MARKED WITH ▭ ARE RELATED WITH X-RADIATION.
5. THICK LINES ARE 15WATTS SUPPLY LINE.
6. VIEW OF TR & IC.



7. ISOLATION BORDER LINE.

COLD SIDE ⟨ HOT SIDE

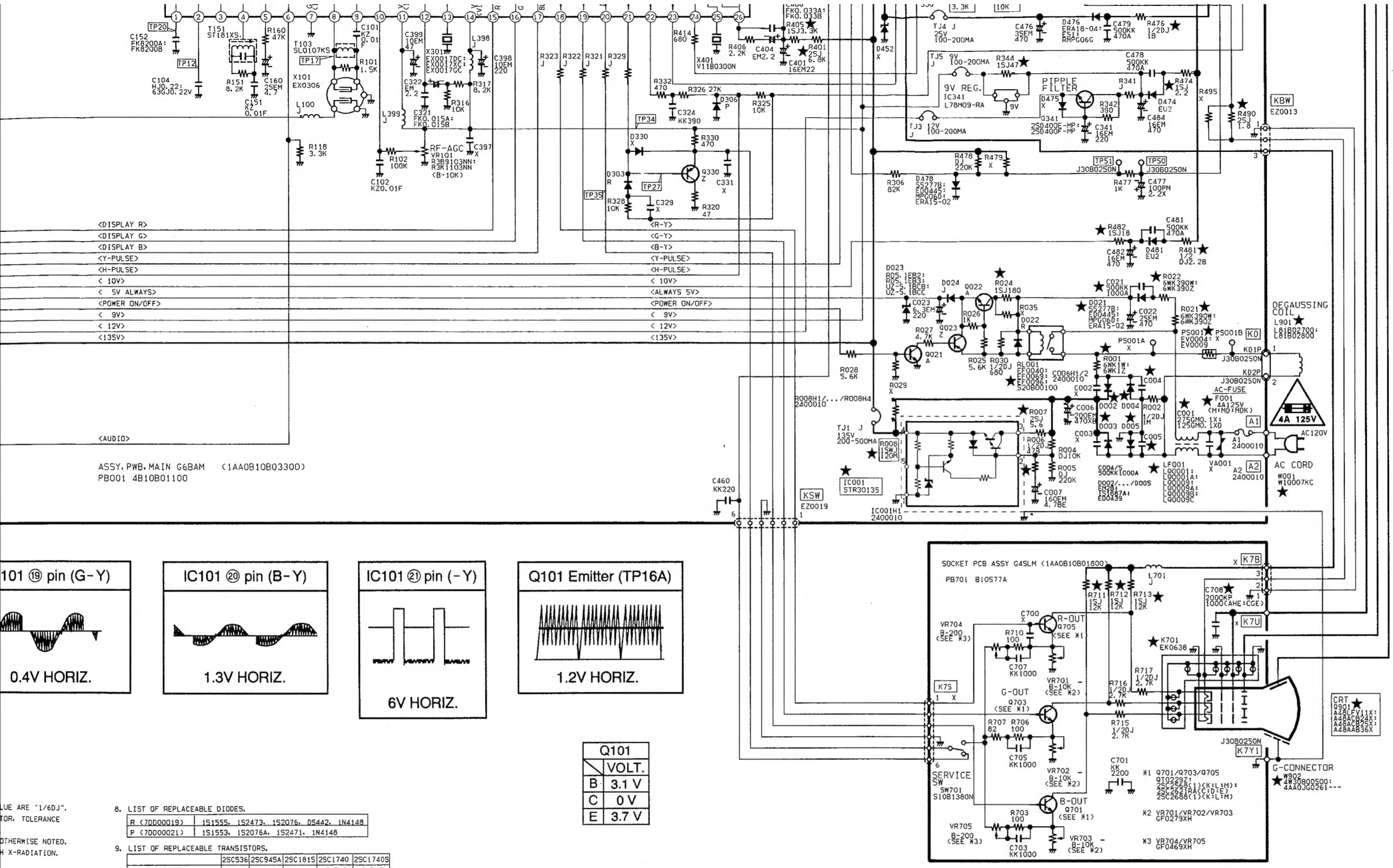
8. LIST OF R

R C7DD00
P C7DD00

9. LIST OF R

A C7Q
C C7Q
Z C7Q

10. "J" : JU
"X" : PA



IC101 ⑲ pin (G-Y)

0.4V HORIZ.

IC101 ⑳ pin (B-Y)

1.3V HORIZ.

IC101 ㉑ pin (-Y)

6V HORIZ.

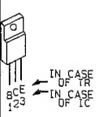
Q101 Emitter (TP16A)

1.2V HORIZ.

Q101	VOLT.
B	3.1 V
C	0 V
E	3.7 V

LUE ARE "1/6DJ".
TOR, TOLERANCE

OTHERWISE NOTED.
H X-RADIATION.



8. LIST OF REPLACEABLE DIODES.

R (7DD00019)	1S1555, 1S2473, 1S2076, DS442, 1N4148
P (7DD00021)	1S1553, 1S2076A, 1S2471, 1N4148

9. LIST OF REPLACEABLE TRANSISTORS.

	2SC536	2SC945A	2SC1815	2SC1740	2SC1740S
A (7QT00214)	E, F, G	P, Q, R	O, Y, G	Q, R, S	Q, R, S
C (7QT00422)	F, G	P, Q	Y, G	Q, R, S	Q, R, S
	2SA608	2SA564A	2SA1015	2SA933	2SA933S
Z (7QT00418)	E, F	Q, R	O, Y, G	Q, R	Q, R

10. "J" : JUMPER WIRE.
"X" : PART NOT USED.

Q021	POWER ON	POWER OFF
B	0.7 V	0 V
C	0 V	16.6 V
E	0 V	

Q022	POWER ON	POWER OFF
B	5.0 V	5.8 V
C	18.0 V	5.1 V
E	5.0 V	

Q023	POWER ON	POWER OFF
B	4.4 V	16.6 V
C	5.0 V	
E	5.2 V	17.3 V

Q701	VOLT.
B	5.3 V
C	193.0V
E	5.4 V

Q703	VOLT.
B	5.3 V
C	191.2V
E	5.1 V

Q705	VOLT.
B	5.3 V
C	191.2V
E	5.2 V